

Listing of Claims

1. (Currently Amended) An electrical connector, including:
a receptacle having a first end, a second end, a cavity extending toward the second end from an opening at the first end, a first detent extending into the cavity at a first distance from the opening, and a second detent extending into the cavity at a second distance from the opening, the second distance being greater than the first distance; and
a plug being removably received by the receptacle cavity, the plug having a body and a stop for limiting the extent to which the body may be inserted into the cavity, thereby defining a seated position, the body including first and second contacts that contact the first and second receptacle detents, respectively, as the body approaches in the seated position, wherein the second contact contacts the first detent during insertion of the plug into the receptacle cavity.
2. (Original) The connector of claim 1, wherein the cavity is substantially cylindrical.
3. (Cancelled)
4. (Original) The connector of claim 1, wherein the body is substantially cylindrical.
5. (Original) The connector of claim 4, wherein the stop is disposed adjacent one end of the body, the stop being annular and having a diameter that is greater than a diameter of the body.
6. (Original) The connector of claim 5, wherein the cavity includes a portion adjacent the opening for receiving the stop having a diameter substantially corresponding to the stop diameter.
7. (Original) The connector of claim 4, wherein the plug contacts are annular.
8. (Currently Amended) An electrical connector, including:
a receptacle having a first end, a second end, a cavity including a central axis and extending toward the second end from an opening at the first end, a first contact extending into the cavity at a first distance from the opening, and a second contact extending into the cavity at a second distance from the opening, the second distance being greater than the first distance; and
a plug being removably received by the receptacle cavity, the plug having a body and a stop for limiting the extent to which the body may be inserted into the cavity,

thereby defining a seated position, the body including first and second contacts that contact the first and second receptacle contacts, respectively, as the body approaches the seated position, the body being substantially cylindrical, and each of the plug contacts including a ring portion having a diameter that is greater than a diameter of the body, the ring portions being offset from cooperating with the receptacle contacts along the central axis to resist removal of the plug from the receptacle when the plug body is in the seated position.

9. (Original) The connector of claim 1, the body further including a first insulator between the first and second contacts.

10. (Previously Presented) The connector of claim 1, the receptacle further including a third detent extending into the cavity at a third distance from the opening, and a fourth detent extending into the cavity at a fourth distance from the opening, the third distance being greater than the second distance and the fourth distance being greater than the third distance, the plug body further including third and fourth contacts that contact the third and fourth receptacle detents, respectively, as the body approaches the seated position.

11. (Original) The connector of claim 10, wherein the plug body is cylindrical and the plug contacts are annular, the plug further including a first annular insulator disposed between the first and second plug contacts, a second annular insulator disposed between the second and third plug contacts, and a third annular insulator disposed between the third and fourth plug contacts.

12. (Currently Amended) An electrical connector, including:

a receptacle having a first end, a second end, a cavity extending toward the second end from an opening at the first end, a first contact extending into the cavity at a first distance from the opening, a second contact extending into the cavity at a second distance from the opening, the second distance being greater than the first distance, a third contact extending into the cavity at a third distance from the opening, ~~and a fourth contact extending into the cavity at a fourth distance from the opening~~, the third distance being greater than the second distance ~~and the fourth distance being greater than the third distance~~; and

a plug being removably received by the receptacle cavity, the plug having a body and a stop for limiting the extent to which the body may be inserted into the cavity, thereby defining a seated position, the body including first, second, and third, ~~and fourth~~ contacts that contact the first, second, and third, ~~and fourth~~ receptacle contacts, respectively, as the body approaches the seated position, the plug body being cylindrical and the plug contacts being annular, the plug further including a first annular insulator disposed between the first and second plug contacts, and a second annular insulator disposed between the

second and third plug contacts, ~~and a third annular insulator disposed between the third and fourth plug contacts, each of the first, second, and third~~ the first and second annular insulators having a different length ~~that is different from the lengths of the other annular insulators, such that one plug contact contacts one receptacle contact during insertion and prior to being seated.~~

13. (Currently Amended) The connector of claim 12, wherein each of the ~~first, second, and third~~ first and second annular insulators includes at least one of a first insulator section and a second insulator section, the first and second insulator sections having different lengths.

14. (Currently Amended) An electrical connector, including:

a receptacle having a first end, a second end, a cavity extending toward the second end from an opening at the first end, a first contact extending into the cavity at a first distance from the opening, a second contact extending into the cavity at a second distance from the opening, the second distance being greater than the first distance, a third contact extending into the cavity at a third distance from the opening, and a fourth contact extending into the cavity at a fourth distance from the opening, the third distance being greater than the second distance and the fourth distance being greater than the third distance; and

a plug being removably received by the receptacle cavity, the plug having a body and a stop for limiting the extent to which the body may be inserted into the cavity, thereby defining a seated position, the body including first, second, third, and fourth contacts that contact the first, second, third, and fourth receptacle contacts, respectively, as the body approaches the seated position, the distance between the first and second plug contacts is different from the distance between the second and third plug contacts, such that one plug contact contacts one receptacle contact during insertion and prior to being seated.

15. (Original) The connector of claim 14, wherein the distance between the third and fourth plug contacts is different from the distance between the first and second plug contacts and different from the distance between the second and third plug contacts.

16. (Original) The connector of claim 1, wherein the plug further includes a tip disposed adjacent a first end of the body for guiding the plug into the receptacle, the stop being disposed at a second end of the body opposite the first end.

17-23. (Cancelled)

24. (Currently Amended) An electrical connector, including:

a receptacle having a cavity including a central axis and a first conductor adjacent the cavity; and

a plug having a second conductor adjacent an outer surface of the plug, and an annular ring that has an increased diameter relative to another diameter of the plug;

wherein a signal on the first conductor is coupled to the second conductor when the plug is substantially fully inserted into the receptacle cavity, the receptacle including a detent being offset for cooperating with respect to the ring to resist removal of the plug from the receptacle when the plug is substantially fully inserted into the cavity.

25-35. (Canceled)

36. (Previously Presented) The connector of claim 8, the receptacle further including a third contact extending into the cavity at a third distance from the opening, and a fourth contact extending into the cavity at a fourth distance from the opening, the third distance being greater than the second distance and the fourth distance being greater than the third distance, the plug body further including third and fourth contacts that contact the third and fourth receptacle contacts, respectively, as the body approaches the seated position.

37. (Previously Presented) The connector of claim 36, wherein the distance between the first and second plug contacts is different from the distance between the second and third plug contacts.

38. (Previously Presented) The connector of claim 36, wherein any two plug contacts are simultaneously in contact with any two receptacle contacts only when the plug reaches the seated position.

39. (Previously Presented) The connector of claim 24, wherein resistance produced by the interaction of the detent and ring to resist plug removal can be overcome by force exerted by a human arm.

40. (Previously Presented) The connector of claim 24, the receptacle further including a third contact extending into the cavity at a third distance from the opening, and a fourth contact extending into the cavity at a fourth distance from the opening, the third distance being greater than the second distance and the fourth distance being greater than the third distance, the plug body further including third and fourth contacts that contact the third and fourth receptacle contacts, respectively, as the body approaches the seated position, the

distance between the first and second plug contacts differing from the distance between the second and third plug contacts.

41. (Canceled)